

CLAIMES

1. A vehicular bumper structure comprising:

a bumper reinforcement that extends along a vehicle width direction;

plural load detection sensors disposed at a vehicle body outer side surface of the bumper reinforcement; and

a load transmitting plate disposed at vehicle body outer side surfaces of the plural load detection sensors.

2. The vehicular bumper structure of claim 1, wherein the plural load detection sensors are dispersed and disposed in a vehicle body vertical direction.

3. The vehicular bumper structure of claim 1, wherein the plural load detection sensors are dispersed and disposed in the vehicle width direction, and the load transmitting plate is divided in the vehicle width direction.

4. The vehicular bumper structure of claim 1, further comprising a collision detection sensor disposed on the load transmitting plate.

5. The vehicular bumper structure of claim 1, wherein the load transmitting plate has a rigidity such that, when a certain load acts in a longitudinal direction of the vehicle body, the load transmitting plate does not contact a front wall of the bumper reinforcement between adjacent sensors of the load detection sensors.

6. A collision detection method applicable to a vehicular bumper system, the method

comprising:

measuring, with plural sensors, loads resulting from at least one occurring impact;
comparing the values of the loads measured by the plural sensors; and
discriminating the at least one impact on the basis of the result of measurement by the plural sensors.

7. A method of switching a vehicular collision body protection device, the method comprising:

measuring, with plural sensors, loads resulting from at least one occurring impact;
comparing the values of the loads measured by the plural sensors; and
discriminating an occurrence position of the at least one impact on the basis of the result of measurement by the plural sensors.

8. The method of claim 7, wherein discriminating the occurrence position of the impact includes discriminating an occurrence position in a horizontal direction.

9. A method of manufacturing a vehicular bumper, the method comprising:

disposing a front bumper reinforcement in a vehicle width direction;
disposing plural ribs at the reinforcement at intervals along one direction;
disposing plural pressure sensors at a vehicle front side member of the reinforcement; and
disposing a load transmitting member at the vehicle front side of the disposed plural pressure sensors.

10. The manufacturing method of claim 9, further comprising disposing a collision detection sensor on the load transmitting member at a position at the vehicle front side in regard to one of the plural pressure sensors.